UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/835,033	04/12/2001	Adam D. Sah	004055.P009	5115

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EXAMINER
TRAN, NHAN T

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.
09/835,033</td><td>Applicant(s)
SAH, ADAM D.</td><td></td></tr>
<tr><td>Examiner
Nhan T. Tran</td><td>Art Unit
2615</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>3/4/2005 & 3/10/2005</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>19-39</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>19-38</u> is/are rejected.

7)☒ Claim(s) <u>39</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04 March 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/4/05 & 3/10/05</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 19-39 have been considered but claims 19-

38 are moot in view of the new ground(s) of rejection.

Information Disclosure Statement

2.   The information disclosure statements (IDS) submitted on 3/4/2005 and 3/10/2005 were

filed after the mailing date of the Non-Final Office Action on 12/9/2004. The submission is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statements are being considered by the examiner.

Drawings

3.   The drawings were received on 3/4/2005 and are accepted. These drawings are Figures

1A – 8.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 19, 22, 24-28, 30-31, 33-36 & 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki et al (US 6,549,948).

Regarding claim 19, Sasaki discloses a method for refreshing an image (see Abstract), the method comprising:

capturing an image with a camera (902, Fig. 13);

sending an image to a user (i.e., a user at terminal 14);

refreshing the image (sending a subsequent image to the user after a previous image), the step of refreshing the image comprising:

(i) capturing a refreshed image with the camera (902), and

(ii) sending the refreshed image to the user, wherein *at least a portion* of the step of refreshing the image is performed when a refresh period has elapsed (see col. 5, line 60 - col. 6, line 6 and note that since the camera 902 is a video camera, therefore in order to refresh an image with a subsequent image, a previous refresh period must have elapsed before starting a subsequent refresh period for the video camera to function properly);

determining whether to increase the refresh period (this equates to *decreasing frame rate* since frame rate is reversely proportional to a frame period or a refresh period, i.e., $T = 1/f$), wherein the step of determining whether to increase the refresh period comprises determining at least one of:

(i) whether the user is inactive (see col. 15, lines 1-6, wherein the user is considered inactive with respect to unwatched displaying window(s) when his/her visual axis directs to only one displaying window or so called a watched window),

(ii) a first period of time has elapsed (reaches value 0) (see Fig. 6; col. 7, lines 38-43);

increasing the refresh period (decreasing the frame rate) in response to determining at

least one of that the user is inactive (col. 15, lines 1-6), that a period of time has elapsed (col. 7,

lines 38-43).

Regarding claim 22, it is clearly shown with a control loop in Fig. 6 that the period for

determining whether to increase the refresh period (decreasing the frame rate) is performed

periodically by the CPU of the computer (Figs. 8 & 13) by running the loop to determine the

status of the frame rate.

Regarding claim 24, see the analysis of claim 22, wherein in order for increasing refresh

period for a subsequent image (decreasing frame rate), the previous refresh period must have

elapsed for the system to function properly.

Regarding claim 25, Sasaki further discloses that the step of determining whether to

increase the refresh period (decreasing frame rate) is performed when a timer reaches a preset

value (col. 7, lines 38-43).

Regarding claim 26, see the analysis of claim 25, wherein the timer is also considered as

a counter.

Regarding claim 27, Sasaki discloses that the step of determining whether the user is

inactive comprises whether a window displaying the image is visible to the user (see col. 15,

lines 1-6, wherein the direction of visual axis of the user indicates that only the watched window

is fully visible to the user and the other unwatched windows are not visible).

Regarding claim 28, it is also clear that the step of determining whether the user is

inactive comprises whether the user is using the user's system. This is when the user walks away

from his/her computer. The user's eyes are not detected, meaning that the user is not using the

computer, and the current frame rate is decreased to a lower frame rate (i.e., 1 frame/sec) as

shown in col. 15, lines 1-6; col. 14, lines 13-19.

Regarding claim 30, Sasaki further discloses that the user is permitted to change the

refresh period by using a mouse to click on decreasing frame rate button 107 or increasing frame

rate button 106 as shown in Fig. 1; col. 5, lines 64-67.

Regarding claim 31, Sasaki discloses an apparatus to refresh an image (Figs. 8 & 13), the

apparatus comprising:

(a) a network connection at 814 to 815 shown in Figs. 8 &13, wherein the network

connection is operable for communicating images from a camera (902) to a user's system (11-14)

(see col. 6, lines 1-12);

(b) a refresh logic (CPU 804 in combination with 811 & 814) configured to refresh an

image captured by the camera upon a lapsed of a refresh period (see the analysis of claim 19 for

a lapsed period of each frame), the refresh logic being configured to refresh an image by sending

a refreshed image to the user's system via the network connection (see col. 6, lines 7-24);

(c) a refresh rate logic (also CPU 804) in communication with the refresh logic, wherein

the refresh rate logic is configured to determine whether the refresh period should be changed,

the refresh rate logic being further configured to change the refresh period in response to a

determination that the refresh period should be increased (decreasing frame rate), wherein the

refresh rate logic is in communication with at least one of:

(i) a timer (Fig. 6; col. 7, lines 38-43), or

(ii) an activity monitor (detection of user's visual axis) configured to monitor activity of

the user, wherein the refresh rate logic is configured to determine whether the refresh period

should be changed based at least in part one or more communications from the at least one of a

timer or an activity monitor (see col. 15, lines 1-6 and col. 7, lines 38-43).

Regarding claim 33, it is clearly shown with a control loop in Fig. 6 that the period for

determining whether to increase the refresh period (decreasing the frame rate) is performed

periodically by the CPU of terminal computer (Figs. 8 & 13) by running the loop to determine

the status of the frame rate. See col. 7, lines 38-43 and col. 15, lines 1-6.

Regarding claim 34, see the analysis of claim 33.

Regarding claim 35, see the analysis of claim 27 for detection of user's visual axis in

which unwatched displaying windows are triggered to request decreasing frame rate.

Regarding claim 36, see the analysis of claim 19.

Regarding claim 38, see the analysis of claim 35.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 20, 21, 23 & 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sasaki et al (US 6,549,948) in view of Tullberg et al (US 6,813,312).

Regarding claim 20, Sasaki does not disclose the step of increasing the refresh period

(decreasing frame rate) comprises increasing the refresh period along an exponential curve.

However, as taught by Tullberg, a camera network system is configured to increase a refresh

period of captured image by gradually decreasing frame rate from 25 frames/second (period =

1/25 = 40ms) to 5 frames/second (period = 1/5 = 200ms) along an exponential curve (see

Tullberg, Figs. 4, 5a, 5b & 6a) when unimportant images in normal events are not likely to be

watched by the user or operator so as to save memory space for storing important images at

higher frame rate for more important events. See Tullberg, col. 7, line 10 - col. 8, line 15 and

col. 8, lines 60-65.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the

method for refreshing the image in Sasaki to include the teaching of Tullberg for increasing the

refresh period (decreasing frame rate) along an exponential curve so that important images that

the user would focus on would be refreshed at higher rate while unimportant images would be

refreshed at decreasing rates along an exponential curve for saving memory space and reducing

network bandwidth.

Regarding claim 21, Tullberg further discloses that at least a portion of the step

refreshing the image is no longer performed (zero frame per second which is indicated by 0 Fps)

after a second period of time has elapsed (see Tullberg, Figs. 4, 5a, 5b).

Regarding claim 23, also disclosed by Tullberg is that the period for determining whether

to increase the refresh period is greater than the refresh period. See Figs. 4, 5a & 5b, wherein the

refresh period is about 40ms for the frame rate of 25 frames/sec or 66.66ms for the frame rate of

15 frames/sec and a period to determine whether to increase the refresh period (decreasing frame

rate) is scaled in minutes (horizontal axis).

Regarding claim 32, see the analysis of claim 21, wherein the refresh period is set to

infinity (zero frame/sec).

6.   Claims 29 & 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et

al (US 6,549,948) in view of Atick et al (US 6,111,517).

        Regarding claim 29, Sasaki does not explicitly disclose that the step of determining

whether the user is active or inactive comprises determining whether a screen saver has been

activated on the user's system. As taught by Atick, it is well known in the art that most

operating systems comprise a screen saver feature. In accordance with this feature, when the

operating system detects a preestablished period of user inactivity, it automatically launches a

screen saver application (see Atick, col. 8, lines 41-61).

        Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the method of Sasaki with the teaching of Atick for determining

whether the user is active or inactive by detecting whether the screen saver has been activated on

the user's system in a conventional configuration.

        Regarding claim 37, see the analysis of claim 29, wherein the user inactivity is

determined when preestablished period of time has elapsed (see Atick, col. 8, lines 41-51).

Allowable Subject Matter

7.   Claim 39 is objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim and

any intervening claims.

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this
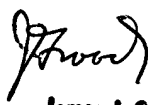
final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The

examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.

James J. Groody
Supervisory Patent Examiner
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